

# REMARKS

## I. RESTRICTION AND PROVISIONAL ELECTION

### 1. Provisional Election of Invention

Provisional election of one of the following groups of claims was required to further prosecution of the claims on their merits:

- (I) Group I, cosmetic composition claims 1 to 23,
- (II) Group II method claims 24 and 26 to 29,
- (III) Group III method claims 25 and 26 to 29,
- (IV) Group IV method claims 30 to 33, and
- (V) Group V method claims 34, 35, and 36.

Applicants *provisionally* elect to continue prosecution of the Group I claims 1 to 4 and 6 to 23 with traversal. Claim 5 has been canceled. The newly added composition claims 36 to 48 are Group I claims. The new ready-to-use composition claim 49 claims the product of the method of preparation claim 24.

### 2. Provisional Election of Species

Since the composition claims 1 to 23 have been limited to the oxygen-utilizing ascorbate oxidase, there is no need to require species election of EC 1.10.3.3 (since ascorbate oxidase belongs to this enzyme commission class).

Responsive to the species election requirement on pages 3 and 4 of the Office Action dated June 27, 2007, applicants *provisionally* elect the following species of the originally claimed compositions of claims 1 to 23 for further prosecution:

- (a) an enzyme derived from *Cucurbita* species (i.e. ascorbate oxidase from *Cucurbita*);
- (b) an enzyme stabilizing substance consisting of a buffer;
- (c) a solid support for the enzyme consisting of PEG; and
- (d) a cosmetic ingredient consisting of a wetting agent or emulsifier selected from the group consisting of anionic surfactants, cationic surfactants, amphoteric surfactants and nonionic surfactants.

### **3. Claims Readable on Elected Species**

Claims 1 to 4 and 6 to 23 and new independent claim 44 are **generic** for all species of invention. Claim 44 is more limited than claim 1 and contains subject matter from the original claims 1, 5, 8, 13, 15, and 19.

New dependent claims 37, 38, and 48 read on the *provisionally* elected species of the cosmetic ingredient.

New dependent claims 39 to 42 read on the non-elected species of cosmetic ingredient.

New dependent claims 43 and 46 read on the *provisionally* elected species of enzyme stabilizing substance.

New dependent claim 45 reads on the *provisionally* elected species of origin for the enzyme.

New dependent claim 47 reads on the *provisionally* elected species of the solid support for the enzyme.

## II. TRAVERSAL

The requirement to elect a single invention, i.e. one of the five groups of claims set forth on page 2 of the Office Action dated June 27, 2007, in accordance with 37 CFR 1.499 is respectfully traversed.

The above-identified U.S. Patent Application is the national stage of PCT/EP 2004/011592, filed on October 15, 2004 (the US effective filing date) under 35 U.S.C. 371. Thus “unity of invention” practice in accordance with M.P.E.P. 1893.03 and 37 CFR 1.475 is controlling during examination, not restriction practice, which applies to domestic US application filed under 35 U.S.C. 111.

Thus in accordance with PCT Rule 13.1 claims of Groups I to V will be prosecuted in a single US national stage application provided that all the claims of Groups I to V contain a “special technical feature” in accordance with 37 CFR 1.475 (a), which distinguishes them from the prior art.

The independent composition claim 1 and independent method claims 24, 25, 30, 34 and 35 have now been amended and also new claims 37 to 49 have been drafted, so that they now include a single technical feature that

distinguishes them from the claimed invention. The enzyme recited in each independent claim has been **limited to an oxygen-utilizing ascorbate oxidase.**

It is respectfully submitted that the special technical factor that distinguishes the claimed inventions from the prior art under PCT Rule 13.1 is the use of the ascorbate oxidase as the enzyme that provides the enzymatic oxidation in the claimed methods and the enzyme that is present in the claimed compositions.

Page 3 of the Office Action cites Kravtchenko, et al, U.S. Published Patent Application 2002/0034488 for containing disclosures that show that the Groups I to V of the original claims 1 to 36 do not relate to a single inventive concept. It is respectfully submitted that the original claims have now been amended so that they do relate to a single inventive concept and that Kravtchenko, et al, does not contain any disclosures that show that they do not relate to a single inventive concept.

Kravtchenko, et al, U.S. 2002/0034488, does **not** disclose a cosmetic composition that contains an oxygen-utilizing ascorbate oxidase or a method that utilizes the oxygen-utilizing ascorbate oxidase. Furthermore neither oxygen nor ascorbic acid can be found in the list of donors (or substrates) for 2-electron oxidoreductases in paragraph [0036] of US '488, especially in re claim 49.

The L-ascorbate **peroxidases** (EC 1.11) mentioned in claim 14 and paragraph [0048] of US '488 are not the oxygen-utilizing ascorbate oxidase of the applicants' claims because instead of oxygen they need peroxide, preferably hydrogen peroxide, as a substrate. In the case of applicants' inventions hydrogen

peroxide should be avoided in the cosmetic composition (see page 1, last four lines, and page 2, lines 1 and 2, of applicants' US specification).

Thus, US '488 does not disclose the single technical feature that distinguishes applicants' claimed cosmetic composition and claimed methods of treating skin or hair from the prior art.

Also US '488 would lead one skilled in the art away from the applicants' claimed invention because it suggests using peroxidase enzymes (EC 1.11), which require hydrogen peroxide as a substrate according to paragraph [0051]. One aim of the present invention is to avoid producing hydrogen peroxide in their methods or including hydrogen peroxide in their claimed compositions, since hydrogen peroxide can damage hair (see pages 1 and 2 of applicants' US specification).

Furthermore the reference, US '488, contains no disclosures that would motivate one skilled in the art to use ascorbate oxidase, or suggest to one skilled in the art to use L-ascorbate oxidase, as the enzyme in the enzymatic oxidizing system.

For the foregoing reasons, and because of the changes in the claims, withdrawal of the requirement on page 2 of the Office Action to elect one of Groups I to V for further prosecution in the above-identified U.S. Patent Application is respectfully requested. All of amended claims 1 to 4 and 6 to 36 and new claims 37 to 49 should be prosecuted in the same application because they all contain the same single technical distinguishing factor, which distinguishes them from the prior art.

### **III. OTHER CLAIM CHANGES**

A number of changes were made in the original claims 1 to 4 and 6 to 36 because those claims contained some grammatical, spelling and logical errors that could lead to rejections under 35 U.S.C. 112. The changes are designed to eliminate some of the wording problems that would lead to a rejection of the claims for indefiniteness. However no changes were made in the scope of these claims.

For example, the wording for the alternatives for the cosmetic ingredient in claim 19 was corrected so that it is in the form of a proper Markush group. The specific exemplary compounds originally included in claim 19 have been deleted from the claim 19. However new dependent claims 37 to 42 have been added. These new claims 37 to 42 recite the exemplary compounds that were deleted from claim 19.

In addition, the Markush wording in a) of claim 1 has been amended to properly use the plural for the derivatives and the salts.

Changes have been made in all claims to provide proper and consistent punctuation. Also it is believed that the term “enzymatic” is a better choice than “enzymatical” in the independent claims, e.g. in claim 1.

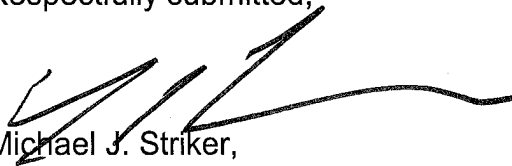
Method claims 30, 34, and 35 were amended so that they no longer depend on a composition claim. A claim of one statutory class should not depend on a claim of another statutory class, because it does not limit the latter claim.

Various antecedent basis errors and misspellings were corrected.

Should the Examiner require or consider it advisable that the specification, claims and/or drawing be further amended or corrected in formal respects to put this case in condition for final allowance, then it is requested that such amendments or corrections be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing the case to allowance, he or she is invited to telephone the undersigned at 1-631-549 4700.

In view of the foregoing, favorable allowance is respectfully solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael J. Striker", with a long horizontal flourish extending to the right.

Michael J. Striker,

Attorney for the Applicants

Reg. No. 27,233